

Amendments to the Claims

Listing of Claims:

Claim 1 (currently amended): A fire detector, comprising an insertable detector assembly which includes a sensor arrangement and an electronic evaluation system, and a housing which surrounds the sensor arrangement and has openings to provide access by air and, when applicable, smoke to the sensor arrangement, wherein the detector is of modular construction and is configured to accommodate mutually different detector modules having sensors for different fire parameters, all detection modules being compatible with a single housing, wherein the sensor arrangement and the access openings are arranged substantially in one plane, and wherein the detection modules have an identical carrier plate for all detector types, the carrier plate insertable in the ~~detector~~ housing and configured to accommodate the sensors for the different fire parameters.

Claims 2-3 (canceled).

Claim 4 (previously presented): The fire detector of claim 1, wherein the carrier plate includes, on its underside facing towards a detector cap, housings for accommodating components of an electro-optical sensor system and is configured on its upper side for mounting a printed circuit board carrying the electronic evaluation system.

Claim 5 (previously presented): The fire detector of claim 4, wherein the housing includes a detector hood comprising an annular upper part and a lower part spaced therefrom and forming the cap of the detector.

Claim 6 (previously presented): The fire detector of claim 5, wherein a gap between the two parts of the detector hood forms the access openings and the lower part is connected to the upper part by bridges.

Claim 7 (previously presented): The fire detector of claim 4, and further comprising an optical detection module for measuring scattered light caused by smoke including at least one light source, a light detector, a measuring chamber and a labyrinth system having screens arranged at its periphery, the at least one light source and the light detector being fixed in the housings on the underside of the carrier plate and the labyrinth system being formed in the manner of a cover and being fixable to the carrier plate.

Claim 8 (previously presented): The fire detector of claim 6, further comprising a thermal detection module having two temperature sensors which are fixed to the printed circuit board radially opposite one another and project downwardly from the latter through the carrier plate.

Claim 9 (previously presented): The fire detector of claim 8, wherein the bridges are configured in the form of wings or straps having a vertically disposed opening and are provided in an even number, and in that the temperature sensors project from

above towards one of the bridges in each case in such a way that their free ends are located directly in or behind the opening.

Claim 10 (previously presented): The fire detector of claim 9, wherein the thermal detection module has a cover plate fixable to the carrier plate for covering the housings which are provided for the electro-optical sensor system, and in that openings through which the temperature sensors can pass are provided in the cover plate and a dividing wall for effecting a directed air-flow is provided between the temperature sensors and is disposed in a radial direction.

Claim 11 (previously presented): The fire detector of claim 6, further comprising an optical-thermal detection module for measuring scattered light caused by smoke and for measuring temperature, which detection module includes the electro-optical sensor system and two temperature sensors, the latter being arranged laterally beside the optical sensor system.

Claim 12 (previously presented): The fire detector of claim 1, wherein the temperature sensors are fixed to the printed circuit board radially opposite one another and their free ends are located in the vicinity of the bridges.

Claim 13 (previously presented): The fire detector of claim 12, wherein the bridges are so configured that they protect the temperature sensors from mechanical influences and ensure air-flow to the temperature sensors which is substantially as undisturbed.

Claim 14 (previously presented): The fire detector of claim 7, further comprising a light guide is fixed to the base of the labyrinth system, which light guide extends upwardly to the printed circuit board and forms part of an alarm display visible in the region of the apex of the detector.

Claim 15 (previously presented): The fire detector of claim 14, further comprising a base associated with the housing of the fire detector and having a multi-pole connector, and by a multiple plug arranged in the housing of the fire detector and insertable tangentially in the multi-pole connector by rotating the housing of the detector relatively to the base.

Claim 16 (previously presented): The fire detector of claim 15, wherein the multiple plug is integrated in the carrier plate using insert technology.

Claim 17 (previously presented): The fire detector of claim 16, further comprising an alarm module having an acoustic alarm emitter arranged in a separate housing offset from the housing of the fire detector.

Claim 18 (previously presented): The fire detector of claim 9, wherein the bridges are so configured that they protect the temperature sensors from mechanical influences and ensure air-flow to the temperature sensors which is substantially undisturbed.

Claim 19 (previously presented): The fire detector of claim 1, further comprising an alarm module having an acoustic alarm emitter arranged in a separate housing offset from the housing of the fire detector.

Claim 20 (previously presented): The fire detector of claim 6, further comprising an alarm module having an acoustic alarm emitter arranged in a separate housing offset from the housing of the fire detector.

Claim 21 (currently amended): A fire detector comprising:

a detector module which includes a sensor arrangement and an electronic evaluation system;

a housing surrounding the sensor arrangement and having openings to provide access by air and, when applicable, smoke to the sensor arrangement;

wherein the fire detector is of modular construction and the detector module is one of a plurality of different types of detector modules, each of the different types of detector modules having a different set of components including a different sensor for a different fire parameter, and each of the different types of detector modules being compatible within the housing, wherein each of the different types of detector modules comprise an identical carrier plate which is insertable in the fire detector housing for selectively rendering the fire detector capable of sensing a given fire parameter.

Claim 22 (previously presented): The fire detector arrangement of claim 21 wherein one of the plurality of different types of modules comprises at least one light source

and at least one light detector and another of the plurality of different types of modules does not comprise the at least one light source and the at least one light detector.

Claim 23 (new): A fire detector comprising:

a fire detector housing formed with air access openings through which air and, if applicable, smoke may enter into an interior of said housing;

a first detector module carrying a set of components including a first sensor assembly configured to detect a first fire parameter;

a second detector module carrying a set of components including a second sensor assembly configured to detect a second fire parameter different from the first fire parameter;

wherein the interior of said housing is formed to receive therein either said first detector module or said second detector module for rendering the fire detector capable of detecting the first fire parameter or the second fire parameter, respectively.

Claim 24 (new): The first detector according to claim 23, wherein each of said first and second detector modules comprises an identical carrier plate configured for insertion into said fire detector housing.

Claim 25 (new): The fire detector according to claim 21, wherein said first sensor assembly comprises at least one light source and at least one light detector for optical detection, and said second sensor assembly includes a temperature sensor.

Claim 26 (new): The fire detector according to claim 25, wherein said first sensor assembly further includes a temperature sensor.